



MAY (Thos J.)  
*With Compliments of  
Author.*

THE  
EXTERNAL THERAPEUTICS  
OF  
PULMONARY CONSUMPTION.

*A Retrospect of Twenty Cases Treated  
by this Method.*

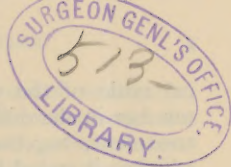
FOURTH PAPER.

BY  
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FROM  
THE MEDICAL NEWS,  
October 10, 1885.







THE EXTERNAL THERAPEUTICS  
OF  
PULMONARY CONSUMPTION.<sup>1</sup>

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IN offering a new method, or rather an old method under a new aspect for the treatment of pulmonary consumption, I do not claim for it infallibility, nor do I propose it to the exclusion of other forms of treatment which are useful ; but merely on account of the belief that it is able to show superior practical results to any plan which has been heretofore advocated ; therefore, I hope it will not be taken amiss when I undertake to follow in the footsteps of some of my illustrious brethren and take a survey of some of the operations and products of the external method of treatment in this disease.

In my three former communications on this subject I embodied twenty cases in the various stages of pulmonary consumption, with a view to illustrate the practical workings of this method of treatment. In this paper I shall, in the first place, give an analyti-

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<sup>1</sup> The first and third papers appeared in *THE MEDICAL NEWS* for March 8, 1884, and August 22, 1885, and the second appeared in *The Therapeutic Gazette* for June, 1885.

cal table of the whole number of cases—citing the number in the different stages when they came under treatment, together with the result of treatment, whether it ended in recovery, in improvement only, or in death; and then give a condensed résumé of each case as far as necessary to the full elucidation of the object of the paper. The cases are not subdivided into the different varieties of the disease, but are classified under the one broad title of pulmonary consumption, merely because, in a large number of cases, the landmarks which divide one variety from the other are too faint to allow a distinction; nor is it necessary to designate more than the first and third stages in order to grade the severity of the disease, because the second is, at all events, a passing or a transient stage, and is never sharply defined from the first and third:

	Number.	Per cent.
Patients reported . . . . .	20	
“ in first stage . . . . .	12	60
“ in third stage . . . . .	8	40
“ in first stage recovered . . . . .	12	60
“ in first stage recovered, relapsed, but restored again . . . . .	1	5
“ in third stage recovered . . . . .	5	25
“ in third stage died . . . . .	2	10
“ in third stage improved, but will die . . . . .	1	5
Whole number of patients who recovered, ex- cluding the case which relapsed but which was subsequently restored, as well as the one which improved, but which will die . . . . .	16	80

CASE I. (*Case I., Series 1*) was in the first stage of pulmonary consumption and came under my care in May, 1879. She then had a cough and profuse expectoration streaked with blood since the previous August. She had hæmoptysis two months before. She had chills and night-sweats, lost in flesh, poor appetite, but bowels and menses were regular. Physi-

cal signs were diminished percussion resonance, and crepitation over left apex. She was treated for one month with the external method, when she was restored. She afterwards married, became the mother of a family, and, as far as I know, is well at present.

CASE II. (*Case II., Series 1*) was first seen in March, 1879, in the following condition: loss of sleep, constant cough, profuse expectoration, night-sweats, poor appetite, coated tongue, irregular bowels, and losing flesh rapidly, no hæmoptysis, lost a brother with consumption. *Physical signs*: Dulness, and crepitation in upper two-thirds of left lung. He made a good recovery and is now well and working every day, although a small cavity formed in the middle third of the lung during the treatment.

CASE III. (*Case III., Series 1*) came under treatment in November, 1880. He had a cough, expectoration streaked with blood, stitches in left apex, night-sweats, wasting, and poor appetite. *Physical signs*: Diminished percussion resonance, crepitation and wavy respiration in left apex. He made a good recovery, married afterwards, and became father of a small family. He lost a brother from the same disease.

CASE IV. (*Case IV., Series 1*) became my patient in July, 1883, when she had a cough, chills, lost flesh, poor appetite, no hæmoptysis, weight 100½ pounds. Her father's mother and sister, and her mother's sister died of consumption. She lost a brother at the age of eighteen from some form of lung trouble. *Physical signs*: Dulness over left apex, as well as crepitation. She improved under the treatment, weighed 109 pounds the following 7th of September, and is doing well at present writing.

CASE V. (*Case V., Series 1*).—This patient, a boy four and a half years old, was in the third stage when



I first saw him in July, 1883. The disease involved nearly the whole of the left lung. There was a cavity in the apex, cavernous râles in the middle, and complete absence of respiration at the base. Weight, 30½ pounds. An uncle of the boy's died of phthisis ten years before. He made a slow recovery, and in the following December weighed 40 pounds. Doing well at present.

CASE VI. (*Case VI., Series 1*) was in the third stage when she came under treatment in August, 1883. She had copious hæmoptysis, lost flesh rapidly, and had a poor appetite, but no hereditary history of the disease. *Physical signs*: Depression and tympanitic sound between clavicle and mammary region on right side, mucous râles at base. Coarse mucous râles also distributed over posterior base and interscapular region of left lung. When the treatment was commenced she weighed 102½ pounds, and in a little more than a month she gained 9½ pounds. She is well now.

CASE VII. (*Case VII., Series 1*).—This is one of the cases which illustrate the value of employing forms of the external treatment which vary in their strength. For it is shown here that when the milder forms of external stimulation, like the flaxseed poultices, have lost their hold on the disease, the more powerful ones, like the steam jacket, will control it again. This patient was ill since June, 1883, but treatment began last of September, 1883, when he had profuse hæmoptysis, poor appetite, was greatly emaciated, and had a family history of the disease. He was in the third stage, and weighed 133 pounds. *Physical signs*: Tympanitic sound over left apex, both anterior and posterior, with slight dulness over third rib. Cavernous and mucous sounds over same region, with a border of crepitation at its lower limit.

Prolonged expiration in right apex. He began to improve under the flaxseed poultices, and on October 21st only very few moist râles were audible anywhere in his chest. The cavity became very nearly dry, and his physical condition had improved a good deal; but a few days after this date tubular breathing and moist râles developed in lower half of left lung, over which the poultices had no influence, and he went from bad to worse until November 20th, when his physical condition was as follows: Large cavity in left apex with tubular breathing and mucous râles from lower limit of cavity to base of left lung. Small cavity in right apex, too. I now placed on him the more powerful tin-metal steam-jacket, and by last of following January the moist râles had entirely disappeared from both of his lungs, as well as the tubular breathing, and he had improved again, and at this time he weighed 136½ pounds. In a case where there is such extensive excavation no results of great importance can be expected, when there is no permanent improvement in the appetite. He remained in this state for awhile, but sank and died in the spring of the present year.

CASE VIII. (*Case VII., Series 1*).—This patient came under observation in August 1, 1883, with a great deal of cough, profuse expectoration of dark green color and streaked with blood, no hæmoptysis, night sweats or chills, but hoarseness and a great deal of pain in laryngeal region. He was in the third stage, but had no family history of consumption. Weight 128¾ pounds. *Physical signs*: Left side, tympanitic resonance from apex to nipple, and flatness from here to base. Cavernous sounds from clavicle to nipple, and complete absence of respiration over region of flatness, anteriorly, posteriorly, and laterally. Right lung normal. He steadily improved

under the use of the flaxseed poultice, both in symptoms and in physical signs, until August 29th, when he weighed 135½ pounds. The external treatment then lost its influence and he became slightly reduced. The poultice was discontinued on December 9th, and the steam jacket applied. At this time his weight had sunk to 133½ pounds, and his physical condition was about the same as at the time of the last examination, excepting a wavy respiration in upper third of the anterior portion of right lung, as well as broncho-vesicular respiration at base, posteriorly and laterally of same side. After the application of the steam jacket he began to mend. The left lung became permeable, and a few moist and sibilant râles began to manifest themselves in the right base where before was heard broncho-vesicular respiration. All the râles disappeared in the right lung, as well as the wavy respiration, the cavity on the left side became dry, the lower part of same lung resumed its respiratory function in a moderate degree, and the patient, in April, 1884, weighed 137 pounds. He is well at present.

CASE IX. (*Case IX., Series 1*) was first seen in the middle of January, 1884, when he suffered from cough, hæmoptysis, night-sweats, poor appetite and vomiting. *Physical signs*: Impaired percussion resonance and crepitation in right apex. Under the external treatment he began to improve, but he subsequently had a relapse and a cavity formed under the right clavicle. I lost sight of him for nearly a year, but from last account he was alive, but not well. He will in all probability die. He was a pauper, and, therefore, very frequently suffered for the necessary supplies of life, and altogether his hygienic as well as other influences offered but little prospect for permanent relief.



CASE X. (*Case I., Series 2*) was in the first stage of the disease with hereditary tendencies when treatment was begun in January, 1884. He had a cough with copious expectoration and hæmoptysis. *Physical signs*: Percussion dulness and crepitation in left apex. Under the external treatment the affection entirely disappeared in less than a month and a half, although he was an old man.

CASE XI. (*Case II., Series 2*).—This patient had a strong hereditary taint and a most unpromising local and general condition when she began the treatment in August, 1884. She had frequent hemorrhages, was very much emaciated (weight  $99\frac{1}{2}$  pounds), had a poor appetite, irregular bowels, night-sweats, chills, and fever (temperature  $39\frac{3}{8}^{\circ}$ ), hoarseness, and much pain in the larynx which extended to both ears. *Physical signs*: Barrel-shaped chest, with depression below both clavicles, cavity sounds in left apex, dulness, crepitation and cavernous râles in upper half of left lung. After being treated about three weeks she improved in her symptoms and physical signs. She slept better, coughed and expectorated less, appetite very good, and the evening temperature was but slightly above the normal. At this time there were no moist sounds or crepitation audible in any part of her chest. She remained so until the following December when her throat and chest symptoms became aggravated, and she took a relapse, and died the same month.

CASE XII. (*Case III., Series 2*).—This patient was what may be termed in the second stage when he was placed under treatment, in January, 1885. He coughed, and his expectoration was yellow and blood-streaked, had chills and fever, night-sweats, poor appetite, and irregular bowels. *Physical signs*: Dulness on percussion in right apex, cavernous râles

directly beneath right clavicle, and mucous râles from there to third rib anteriorly. Bronchial respiration over posterior aspect of apex extending to spine of scapula. In the course of six weeks' treatment the moist râles had disappeared, a small cavity was present beneath the clavicle, and his appetite was good, and general appearance much improved. When last seen (during present summer), he was doing very well.

CASE XIII. (*Case IV., Series 2*).—This patient came under observation December 5, 1884, and was in the first stage. She had a severe cough, yellow expectoration, hæmoptysis, poor appetite, and night-sweats, and was losing flesh. She was treated with various tonics, among which were the hypophosphites, iron, cod-liver oil, etc., without avail until January 13, 1885, when the flaxseed poultice was applied to her chest. She then showed the following physical signs: Dulness and increased vocal fremitus and resonance over right apex. No crepitation, but bronchial respiration over same region posteriorly and mucous râles anteriorly. March 5th, her chest was free from râles and on April 2d she was able to do her own housework, to which she was not able to attend for six months previously. At present writing she continues well.

CASE XIV. (*Case V., Series 2*).—This patient came under treatment in February, 1885, and was in the first stage. He had a rickety, pigeon-shaped chest, with a deep retraction of the lower end of the sternum. He had a number of copious hemorrhages, was losing flesh rapidly, with dulness and crepitation in right apex, and altogether a most unfavorable outlook. Bleeding ceased, and he began to improve immediately after the application of the poultice. On March 9th crepitation had disappeared, and on April 8th his chest was clear of all abnormal physical

signs except a slight diminished resonance and a coarse vesicular sound in right apex, and he went to work at his trade. He continued well until July, when he had a relapse. Hæmoptysis and crepitation reappeared in the same lung, which were checked the second time by the poultice, and at present feels better, but still weak.

CASE XV. (*Case I., Series 3*).—This case was first seen in May, 1885. He was in the first stage of catarrhal basic pneumonia of the left lung, which was characterized by dulness, crepitation, bronchial respiration, and moist râles. Under the rigid application of the poultice for three weeks the râles all disappeared, but some impairment of percussion resonance remained. At present the left lung has a feeble respiration, no râles, and the patient is eating well and gaining in weight.

CASE XVI. (*Case II., Series 3*) was first seen in April, 1885, and was advised various remedies without any benefit. On May 6th the poultice was applied when he presented the following physical signs: Dulness, bronchial respiration, and crepitation over right apex. On June 2d crepitation had entirely disappeared, and bronchial breathing and dulness were much less marked. From last accounts he is doing well, and has gone to work.

CASE XVII. (*Case III., Series 3*).—This patient came under my observation May 18, 1885. She had a cough, yellow expectoration, hæmoptysis, and says that she is the only surviving member of a family of eleven children, all the rest having died of consumption. She had dulness in the left apex extending to second intercostal space in front, and to spine of scapula behind, with marked crepitation in supraclavicular region. She was placed under treatment the same day, and on June 9th crepitation had sub-

sided, and the dulness was less marked. On June 18th hardly a trace of the disease remained, and she continues to feel well up to the present time.

CASE XVIII. (*Case IV., Series 3*) was placed under the external treatment June 2, 1885, when she manifested the following symptoms and physical signs: Constant cough, worst at night, yellow expectoration, night-sweats, chills and fever, losing in flesh, and no appetite. Dulness in left apex, prolonged expiration posteriorly, and wavy respiration anteriorly over same region. On June 16th the dulness had perceptibly diminished, the wavy respiration had disappeared from the front, and in a month more she was well.

CASE XIX. (*Case V., Series 3*) was in the following condition when he was placed under the external treatment on May 6, 1883: Cough, blood-streaked yellow expectoration, losing flesh, chills, and no appetite. Dulness in right apex, and crepitation in supraclavicular region. On June 2d he felt much better, had no more blood-streaked expectoration, and the crepitation was replaced by a prolonged expiration and roughened inspiration. On June 9th very little evidence of any abnormal signs existed. **Good recovery.**

CASE XX. (*Case VI., Series 3*) presented the following conditions on June 18, 1885, when the external treatment was applied: constant cough, dark greenish expectoration, hæmoptysis, dulness and prolonged expiration over right apex. She improved markedly both in symptoms and physical signs, and when last heard from she was doing well.

*Estimation of Therapeutic Results.*—In forming an opinion of the value of any therapeutic method or agent it is necessary to possess at least an approximate idea of the physical condition of the body before and



after treatment is instituted. To obtain accurate data for this purpose is not always an easy task and sometimes impossible. Happily, however, it can be said that this is not generally true of chest diseases. Here we have physical signs which unfailingly characterize and represent the actual conditions in the underlying organs, and by comparing these as they manifest themselves before, during, and after treatment they furnish us an infallible index in regard to the progress or the retrocession of the disease. Moreover, it is not essential to the success of a certain line of treatment that every case under it should have a favorable ultimate termination. If it can only be shown that it has the power to deflect the disease by moderating and improving the physical signs, then we are warranted in believing that it is indicated, and justified in advocating its usefulness.

In estimating the value of the external method of treatment in pulmonary consumption reference will be made here to the analytical table given on a former page. Of the twenty cases reported there was not a single case which did not at some time during treatment manifest some improvement as indicated by a change in the physical signs, and in an amelioration of the symptoms, while five out of the eight cases in the third stage made what is believed to be a good recovery. Two, in this stage, died, and the other one will probably die within the present year. Out of the twelve in the first stage, all but one made a good recovery, and he was at least partly restored by the same method after his relapse (Case XIV.). The length of time which elapsed since the cessation of the treatment of these patients which are restored varies considerably. Of the five patients in the third stage who recovered one is well six years, one two years, one one year, and the rest for

periods varying from two to six months since treatment was suspended. One case (XIV.) in the first stage relapsed in five months after he was free from the first attack. He subsequently improved again. Cases VII. and XI. died, and Case IX. will in all probability die. All of these cases were in the third stage.

It may be urged that in many of the cases reported there has not elapsed a sufficient length of time since the treatment ceased to pass judgment on the ultimate prospects of these patients. This is true enough in some instances, and the objection would have some degree of relevancy were the aim here to prove the proposition that once well, always well, but manifestly the principal desire is to obtain a just estimate of the immediate products of the treatment. It must not be forgotten, however, in making up this result, that the time since the recovery of the five cases in the third stage ranges from two to six years, while the time since the restoration of four out of twelve in the first stage varies from one to six years, and since the condition of those cases of more recent duration is just as favorable as, and in some instances more so, than that of the older cases, there is every reason to believe that their outlook is just as good.

*Influence of the External Method on Hæmoptysis.*  
—Contrary to the belief that cold is a sovereign remedy as a styptic, the application of heat in the form of hot water has lately attained prominent rank in surgery as a hæmostatic. It will prove itself equally efficient in pulmonary hemorrhage. Case XIV. especially illustrates its efficiency in this respect, This patient had copious bleeding from the lungs, and after other remedies failed to stop it, a hot flaxseed poultice produced immediate beneficial results, and the hemorrhage gradually subsided under its influ-

ence. The relapse which he experienced was ushered in by a severe hæmoptysis, and was likewise promptly relieved by a hot poultice. This case is only a type of some others that came under my notice, and I can safely say that in my whole experience with the external application of heat in this disease I never knew it to aggravate the hemorrhagic tendency.

*Its Influence on Cough and Expectoration.*—It is almost an invariable experience that after the patient has been well poulticed for a few days he “coughs easier and to better effect.” The cough which has been tight before becomes more free and the patient coughs up the offending sputum with greater ease. Longer intervals of rest will therefore occur between the coughing spells and the patient obtains relief and economizes his strength from this source alone. The great degree of quietude derived from the poultice is not only of importance during the day, but is doubly so during the night, for it protects the patient from the harassing cough so incidental to this disease during the sleeping portion of the twenty-four hours. Then again the pleuritic stitches which are so common in this disease are often very readily relieved by the local application. After a short course of poulticing they frequently express themselves that they are able to breathe more freely and deeper than before.

*Its Influence on the Digestive Organs.*—Whatever means or methods are pursued to improve the local condition of the consumptive patient, it must not be forgotten that the ultimate triumph of the treatment depends on the condition of the digestive organs, and on the power of the body to assimilate food. If even the lung difficulty becomes better, there cannot possibly be a constancy in its duration, unless the stomach is able to partake and digest food sufficient

to sustain and build up the shattered constitution. Very often the digestive derangement depends in a large measure on the pulmonary disorder, and in such cases it is self-evident that diminution of the latter will be followed by improvement in the former. Therefore it is always a favorable omen if the patient begins to eat more and relishes his food better than he did before treatment. Most of the patients here reported, experienced a favorable change in this direction,—the change was most marked in those in the early stage of the disease.

*Influence of Internal Medication.*—It may naturally be supposed that the results here recorded are in a great measure due to the influence of cod-liver oil and the hypophosphites, which are generally regarded as having a specific action in this disease. While it is true that in some cases they were administered, and in a general way had a good effect, it is also true that in most of the cases they were discarded, and that in some which terminated favorably the oil positively disagreed. These supposed specifics are admirable in their action, but should never be persevered in when they disagree with the patient, or when they can be supplanted by more efficient agents. Considerable time is often wasted in entertaining wild expectations as to the possibilities of these agents; experience teaches, however, that the physician who administers them with a view of having an action on the local process, other than that which arises from the influence of an improved general condition, will be sorely disappointed.

*The Possibilities of External Therapeutics.*—The external treatment of pulmonary consumption thus far described assumes importance not only on account of its efficiency, but also on account of the economy which can be practised in regard to the



administration of medicinal agents through the stomach. All who have had experience in treating this class of patients will readily admit that the less the digestive organs are used for the purpose of introducing medicines into the system the better for the patient. But the method of applying heat to the chest externally does not by any means exhaust the *armamentarium* of the external treatment in this disease. Other forms of external treatment have been recommended or introduced. Thus Bühl,<sup>1</sup> in speaking of the therapeutics of pulmonary consumption, says (p. 161), "There still remains a wide field for the employment of a rational therapeusis. I would particularly call your attention to the use of external irritation of the skin. This may be by moist or dry friction, and should last a very short time, from half to one minute, or we may employ spirits instead. I would also recommend in some cases the application of a greater amount of heat, as by cloths dipped in oil, or compresses wet in tepid water, and covered with gutta-percha, or the latter substance alone. And, again, Dr. T. Henry Green, in his lectures delivered in the Brompton Hospital for Consumption, in London, says<sup>2</sup> (p. 102), "That in these last named cases (cases where much intra alveolar matter exists which is capable of removal) attempts to stimulate the circulation in the diseased lungs by cold douches and friction, and other similar means, such as have been recently advocated by Dr. A. von Sokolowski, would appear to me to be more in accordance with the teaching of pathology." The treatment here alluded to is fully detailed by Dr. von Sokolowski in

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<sup>1</sup> Inflammation of the Lungs, Tuberculosis, and Consumption, by Dr. Ludwig Bühl. G. P. Putnam's Sons, 1874, New York.

<sup>2</sup> Pathology of Pulmonary Consumption, by T. Henry Green. Henry Renshaw, London, 1878.

the *Berliner klinische Wochenschrift*, Nos. 39, 40, and 44, for 1876, and consists in rubbing the body, in exercising in fresh air, and in cold douches, either in the form of a spray or of a stream of water. The patient is directed to take a brisk walk, or to have his whole body well rubbed with a coarse, dry towel, in order to excite the cutaneous circulation. Then he is subjected to a cold douche for only four or five seconds at the outset, after which he is hurriedly rubbed dry, dressed, and enjoined to take another active walk in the fresh, open air for at least thirty minutes. If the patient is not able to take the required exercise, he is thoroughly rubbed, and walks as much as he can. In those patients for whom this plan of treatment was suited the most satisfactory results were obtained, and it is certainly well worthy of imitation whenever practicable. It is noteworthy that the friction, the external application of cold, as well as of heat, have all a common therapeutic object in view, viz., that of stimulating or of exciting the affected lung structure and its surroundings, and thereby hasten the process of resolution and resorption of the infiltrated products.

In my first paper on this subject I spoke of *massage* as another useful form of external treatment in pulmonary consumption, and since then I have had further experience with it and find no reason to change my favorable views there expressed. If it is performed properly by a person who has some knowledge of the gross anatomy of the body, its physiological and therapeutic effects become apparent at once. Experiments on the lower animals abundantly prove that massage not only accelerates the motion of the fluids of the body, like the blood and lymph, but that it also serves to stimulate and enhance the function of the nervous system. In this

passive manner it invigorates the process of tissue metamorphosis, restores the appetite, and builds up the body. The whole body must be massaged once or twice a day, and no fever or any other condition of the body contraindicates its use throughout the course of the disease. This, then, is another useful adjunct to the external method of treating pulmonary consumption, and should be employed whenever possible.

*Prevention of Recurrence.*—The greatest *desideratum* in the management of the consumptive class is to make the results of successful treatment permanent and enduring. This, of course, is a question which is beset with many difficulties, and to treat it properly implies a dissertation on the influence of foods, of clothing, of shelter, of exercise, etc. ; but one of the chief dangers which confronts people with consumptive tendencies lies in the sudden temperature changes incidental to our northern climate, especially along streams and rivers, where the atmosphere is additionally contaminated by a superabundant humidity. Persons of this class generally have a relaxed capillary circulation of the whole body, and especially of the skin, and are therefore extremely sensitive to the slightest changes in the atmospheric temperature. They perspire readily when it is warm, and are easily chilled when it becomes cool. This liability to sudden oscillations in the capillary circulation of the external and internal coverings of the body constantly exposes them to a liability of inflammatory troubles of the throat and of the respiratory passages, and of course to a recurrence of another attack. Such a body is, therefore, out of harmony with its environment, and the great object here is to bring it back to its former normal relation. One way to accomplish this, in a measure at least, is to

order such people to accustom their bodies, or their extremities only, to cold spongings or baths. They begin the procedure by only bathing the lower extremities for a week or ten days, and then gradually extend to the arms and the body. The parts to be bathed are first briskly rubbed with a dry, coarse towel, then bathed or sponged with cold water ; and afterwards rubbed thoroughly again, and then the patient is allowed to take exercise, or to go to bed. This process is repeated morning and evening, or at least once a day, and that in the morning after breakfast. In this manner a natural reaction of the body is brought into play which enables it to resist and throw off the effects of the deleterious temperature changes.

In addition to this the body must be clothed seasonably, and well fed, and the patient be advised to spend as much time as possible in the open air, and thoroughly practise the art of taking deep inspirations with the mouth closed. This can be done very systematically, while he is walking in the open air, by being taught to inspire once for every eight or ten steps, and also expire once for the same number. The swinging of dumb-bells will materially assist in expanding the lungs and chest-walls. In this way the chest or respiratory muscles will be strengthened, the pulmonary circulation increased ; and the apices, which are probably in a semi-atelectatic condition, will be more thoroughly inflated, and the tendency to the accumulation of catarrhal products in this portion of the respiratory surface avoided.

*Hospital versus Home Treatment.*—There can be no doubt that the clinical results which are obtained in hospitals erected and arranged specially for the treatment of pulmonary diseases are superior to those derived from home treatment. This, I am convinced, is



true of institutions like those of Gerbersdorf and Falkenstein in Germany, and also of similar ones in England. And why should this not be so? Why should not an institution that is erected in accordance with the most approved ideas of ventilation, of heating, of drainage, and with every other appliance particularly adapted for the treatment of this class of cases give better satisfaction than a building where very few or perhaps none of these requisite conditions exist? The kind and amount of food, as well as of drink, of light, and of exercise, the bathing, the general and special treatment, all require to be carried out methodically, and solely with a view to the greatest possible benefit of the patient, and this can only be done well under the immediate supervision of medical attendants, and in a building constructed for the purpose.

Serious objection is often made against the assemblage of many consumptive patients in one building or locality, inasmuch as it would increase the danger from infection and contagion. There is good ground to believe, however, that the risk from these sources is more imaginary than real. The statistics of the Brompton Hospital for Consumption in London, as collected by Drs. Williams and Humphreys, show that, up to the year 1883, embracing a period of thirty-six years, not a single clearly authenticated case of pulmonary consumption among all the attachés of the hospital during that time emanated from within its walls. During the whole thirty-six years there were twenty-nine physicians and assistant physicians connected with the institution, and among these occurred only a single case of phthisis, and he was tuberculous before he came to the hospital. The rest were all well. Dr. Edwards was resident physician for twenty-six years, yet he showed no sign of

the disease. There were employed during the whole period one hundred and fifty clinical assistants. Of these eight died of consumption ; but all, except one, were sufferers from the disease before they became connected with it, and in this one case there is doubt as to the origin of the trouble. Among the hundred and one nurses, of which there is a health record, one is suffering from a slow form of the disease, which was possibly contracted while engaged in the hospital, although she is of a tubercular predisposition. She is an old employé, and able to attend to her duties efficiently most of her time. No more positive evidence to show the non-contagiousness of phthisis could be gathered anywhere than is furnished by this large institution. Every one of the individuals associated with this hospital were almost constantly exposed to the virus of the disease, and yet there is only a single case, the source of which could be traced to contagion, and this rests largely on suspicion. Other evidence gathered from other hospitals of the same kind corroborates these statistics. That phthisis is infectious or communicable from man to man, no one, I think, cares to deny ; but that it is so contagious that those affected with it require constant isolation, is not warranted by facts, and is too bald an assumption to command serious consideration.

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